

**Significant Environmental Aspects,  
Objectives, and Targets**

APPENDIX A-1-9/3/04

<b><u>Aspect</u></b>	<b><u>Objective</u></b>	<b><u>Target</u></b>	<b><u>Operational Control</u></b>	<b><u>Responsible Party</u></b>
Energy and Fuel Consumption	Reduce electrical energy and fuel consumption used to heat and cool AED buildings and power research support operations.	Reduce energy use by 2% per year over a five-year period. This overall target will be accomplished by reducing energy consumption in a variety of areas including: Heating/cooling buildings Lighting buildings Miscellaneous equipment	AED Energy Conservation Program  See: EMP	Facilities Manager
		Upgrade building control systems to improve thermostat control, ventilation rates, and room lighting levels.	See: See: EMP	Facilities Manager
		Develop energy conservation program to include occupancy sensors, low energy lighting systems, etc.	See: See: EMP	Facilities Manager
	Reduce amount of vehicle exhaust generated by AED boats and vehicles where practical and feasible, and reduce the amount of fuel consumed by AED boats and vehicles where practical and	Procure alternative fuel vehicles (e.g., hybrid vehicles, four-stroke outboard engines) as resources allow.	Consider fuel efficiency and emission data when procuring new vehicles and engines.	

	feasible			
	Reduce energy used to chill buildings and seawater.	Re-design and re-commission chiller system to improve plant efficiency.	See: See: EMP	Facilities Manager
	Reduce generation of green house gases and reliance on fossil fuels	Purchase kHz of grid electricity from green energy sources (renewable energy)	See: See: EMP	Facilities Manager
		Purchase 200,000 gal. of “Bio-diesel” fuel for boilers.	See: See: EMP	Facilities Manager

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Water Consumption	Enhance efficient use of freshwater, and reduce consumption for all AED support and research operations.	Reduce freshwater consumption by an average of 5% per year over five years	AED Water Conservation Program See: EMP for Water Consumption	Facilities Manager
	Develop a sustainable landscape program that applies the principals of xeriscape	Reduce water usage and use of fossil fuels (SEA1.0) for landscape maintenance	See: Sustainable Landscape Plan	Facilities Manager
	Install low flow devices in laboratories and lavatories	Up to 100% installation (dependant on available resources and health and safety requirements)	See: See: EMP	Facilities Manager
	Develop recirculating closed loops for cooling water applications.	Eliminate single pass cooling water by installing recirculating water cooling loops for chillers and compressors where feasible.	See: See: EMP	Facilities Manager

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Waste Generation	Reduce conventional, chemical and radioactive waste generation	Reduce the volume of all waste generation by 5% over the next five years	AED recycling program and relevant LOPs.	AED SHEM
	Insure only necessary amounts of chemicals are purchased	Minimize amount of chemical waste generated, and eliminate stocks of redundant chemicals	Chemical inventory data base available to research staff and purchasing approval by SHEM	AED SHEM
	Develop multi-year chemical waste disposal contract with regularly scheduled waste removal	Minimize quantities of chemical waste on site	Chemical waste removal contract	AED SHEM
	Reduce amount of radioactive waste, normalized to research requirements, pursue alternative analytical procedures	Reduce radioactive chemical inventory	LOPs	AED SHEM
	Reduce formaldehyde use in sample preservation	Decrease use of formaldehyde normalized to research requirements	LOPs	AED SHEM
	Develop to extent possible a “paperless workplace”	Reduce amount of paper usage and amount of paper in waste stream	Develop E-forms applications,	EMS Coordinator
	Maximize use of 100% recycled paper	Use 100% recycled paper in all copiers and printers	SOP	EMS Coordinator